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(71) Applicants (for all designated States except US): **XY, INC.** [US/US]; 1108 North Lemay Avenue, Fort Collins, CO 80524 (US). **COLORADO STATE UNIVERSITY** [US/US]; Colorado State University Research Foundation, 601 South Howes Street, Room 410, Fort Collins, CO 80522 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SCHENK, John, L.** [US/US]; XY, INC., 1108 North Lemay Avenue, Fort Collins, CO 80524 (US). **SEIDEL, George, E.** [US/US]; XY, INC., 1108 North Lemay Avenue, Fort Collins, CO 80524 (US). **SUH, Tae, Kwang** [KR/US]; XY, INC., 1108 North Lemay Avenue, Fort Collins, CO 80524 (US).

(74) Agent: **MILES, Craig, R.**; Santangelo Law Offices, P.C., 125 South Howes, Third Floor, Fort Collins, CO 80521 (US).

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**Declaration under Rule 4.17:**

— as to the identity of the inventor (Rule 4.17(i)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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(54) Title: **LOW PRESSURE SPERM CELL SEPARATION SYSTEM**

(57) Abstract: A sperm cell process system providing to generate sperm cell insemination samples having controlled sperm cell fertility characteristics of sperm cells.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/24460

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A01N 1/02; G01N 1/30, 33/48; C07K 1/00; A61B 17/43, A61D 7/00

US CL : 435/2, 40.51; 530/827, 852; 600/33, 35

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : ((

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAPLUS, MEDLINE, EMBASE, BIOSIS, LIFESCI**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PENFOLD, L.M. et al. Comparative Motility of X and Y Chromosome-Bearing Bovine Sperm Separated on the basis of DNA Content. Mol. Reprod. and Develop. 1998, Vol 50, pages 323-327, see entire document.	1-16, 24, 25, 27, 28, 30, 31, 39-54, 58-60
Y	BEYHAN, Z. et al. Sexual Dimorphism in IVM-IVF Bovine Embryos Produced From X and Y Chromosome-Bearing Spermatozoa Sorted by High Speed Flow Cytometry. Theriogenology. 1999, Vol. 52, pages 35-48, see entire document.	1-16, 23-25, 27, 28, 30, 31, 33, 34, 36, 37, 39-61
Y	RATHI, R. et al. Evaluation of In Vitro Capacitation of Stallion Spermatozoa. Biology of Reproduction. 2001, Vol. 65, pages 462-470, see entire document.	1-9, 17-24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 41-61
Y	BUCHANAN, B.R. et al. Insemination of Mares with Low Numbers of Either Unsexed or Sexed Spermatozoa. Theriogenology. 2000, Vol. 53, pages 1333-1344, see entire document.	1-9, 17-24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 41-61

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
Facsimile No. (703)305-3230

Authorized officer

Thai-An N Ton  
Telephone No. 703-308-0196